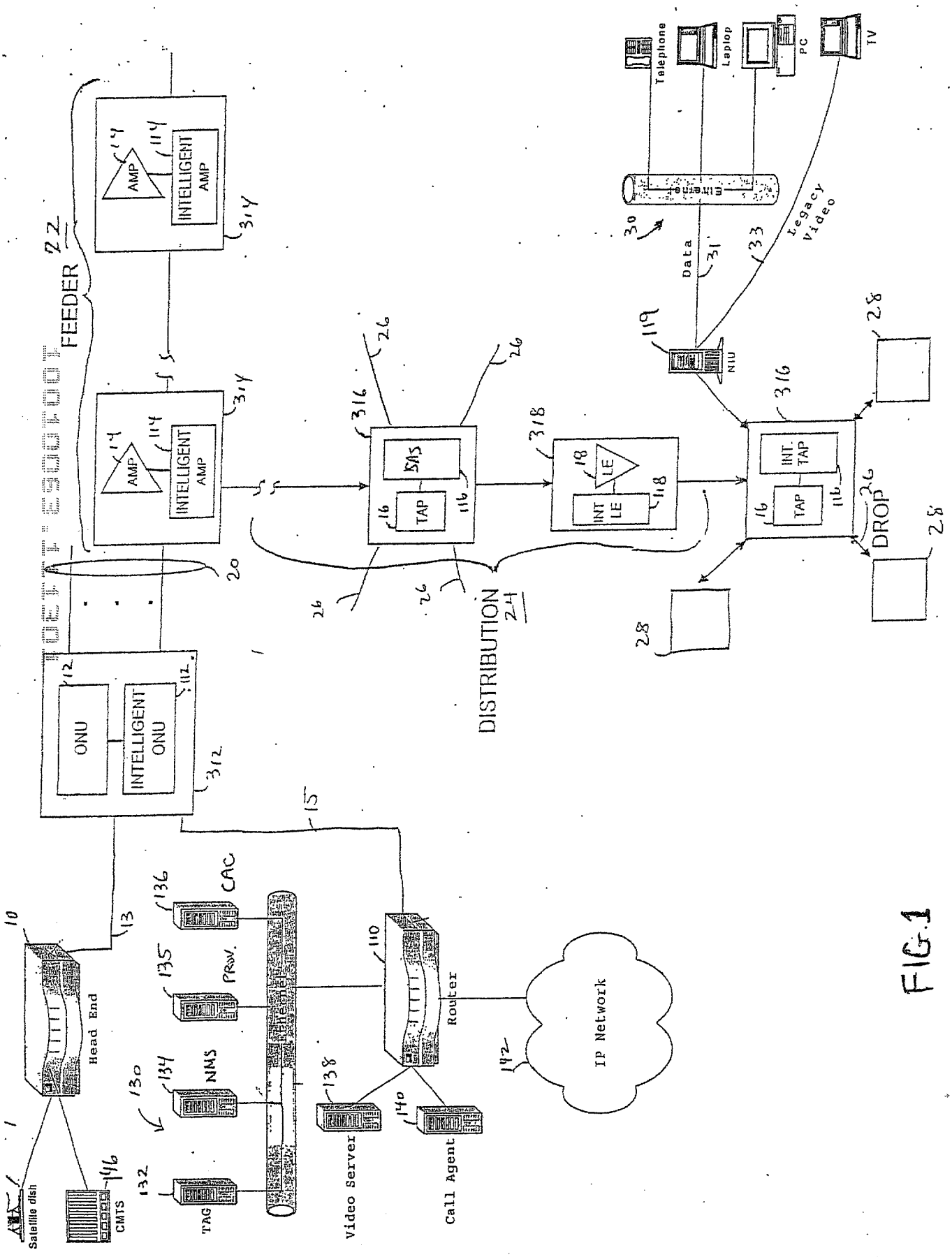
OUTSIDE PLANT
FEEDER 22
DISTRIBUTION 24
DROP 26
AMP
INTELLIGENT AMP
ONU
INTELLIGENT ONU
TAP
INT. TAP
INT LE
LE
NIU
Telephone
Laptop
PC
TV
Data
Legacy Video
Ethernet
Head End
CMTS
Satellite dish
CAC
PRov.
NMS
TAG
Router
Video Server
Call Agent
IP Network

FIG. 1

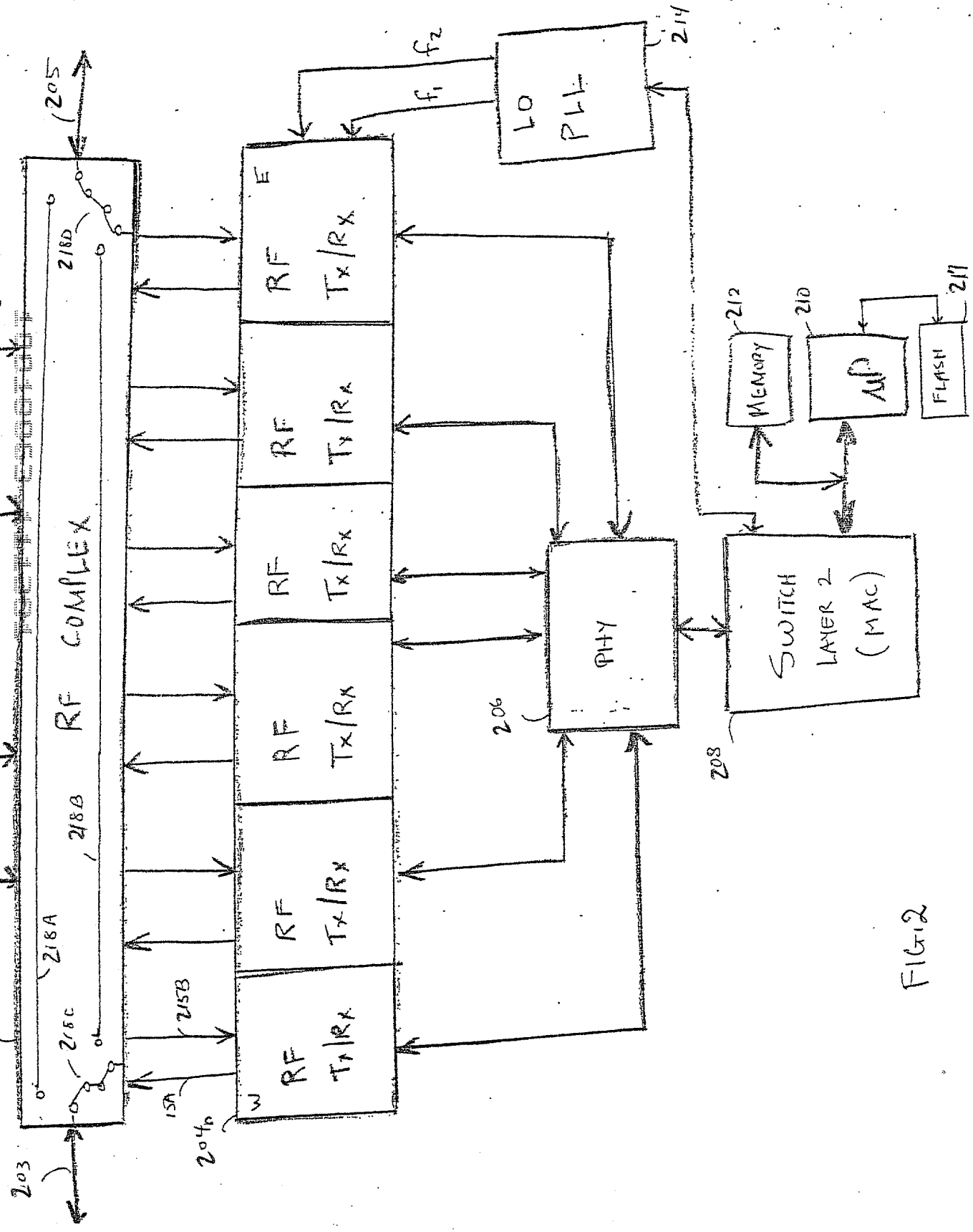
202
201
218A
218B
216C
215B
215A
204n
203
207
205
218D
213
211
RF COMPLEX
RF Tx/Rx
RF Tx/Rx
RF Tx/Rx
RF Tx/Rx
RF Tx/Rx
206
PHY
208
SWITCH LAYER 2 (MAC)
212
MEMORY
210
MP
211
FLASH
214
LO PLL
f2
f1

FIG 2

EXPRESS MAIL

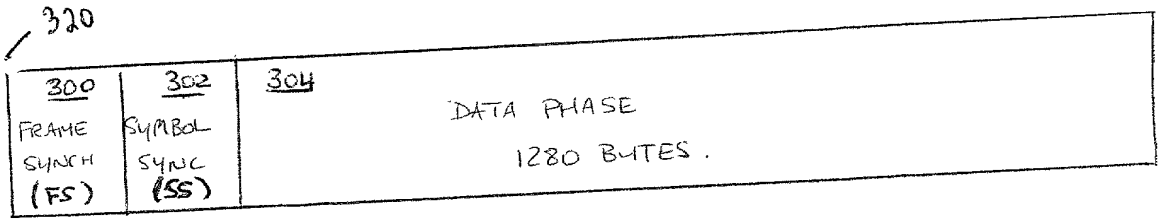

FIG. 3

FOR IP SECRETARY

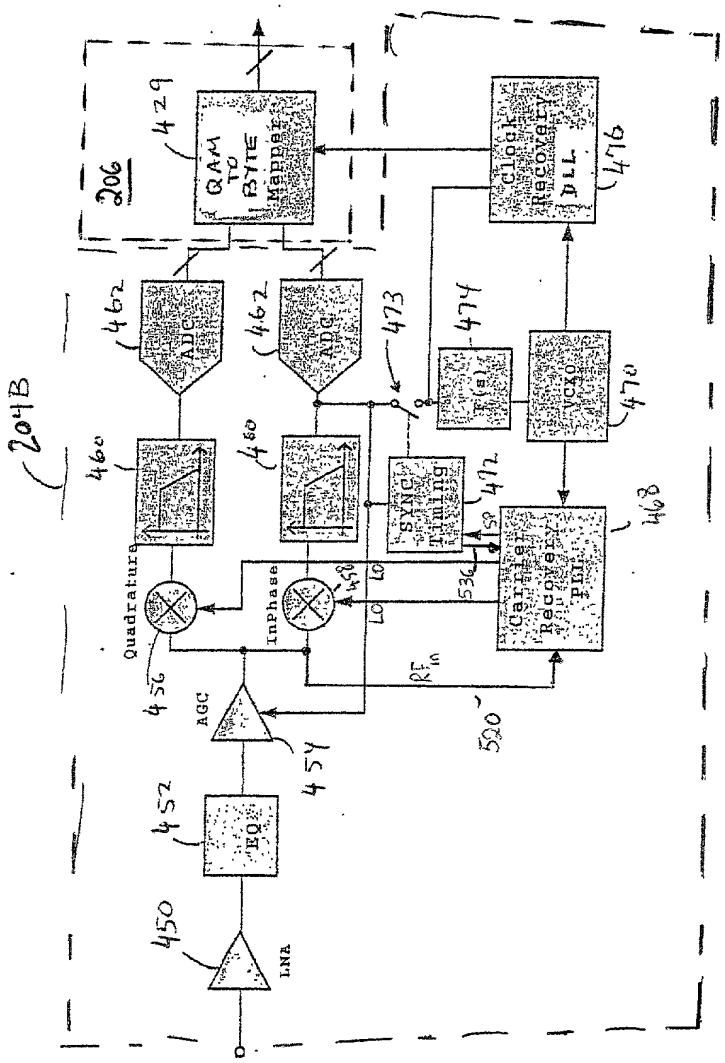

FIG. 4

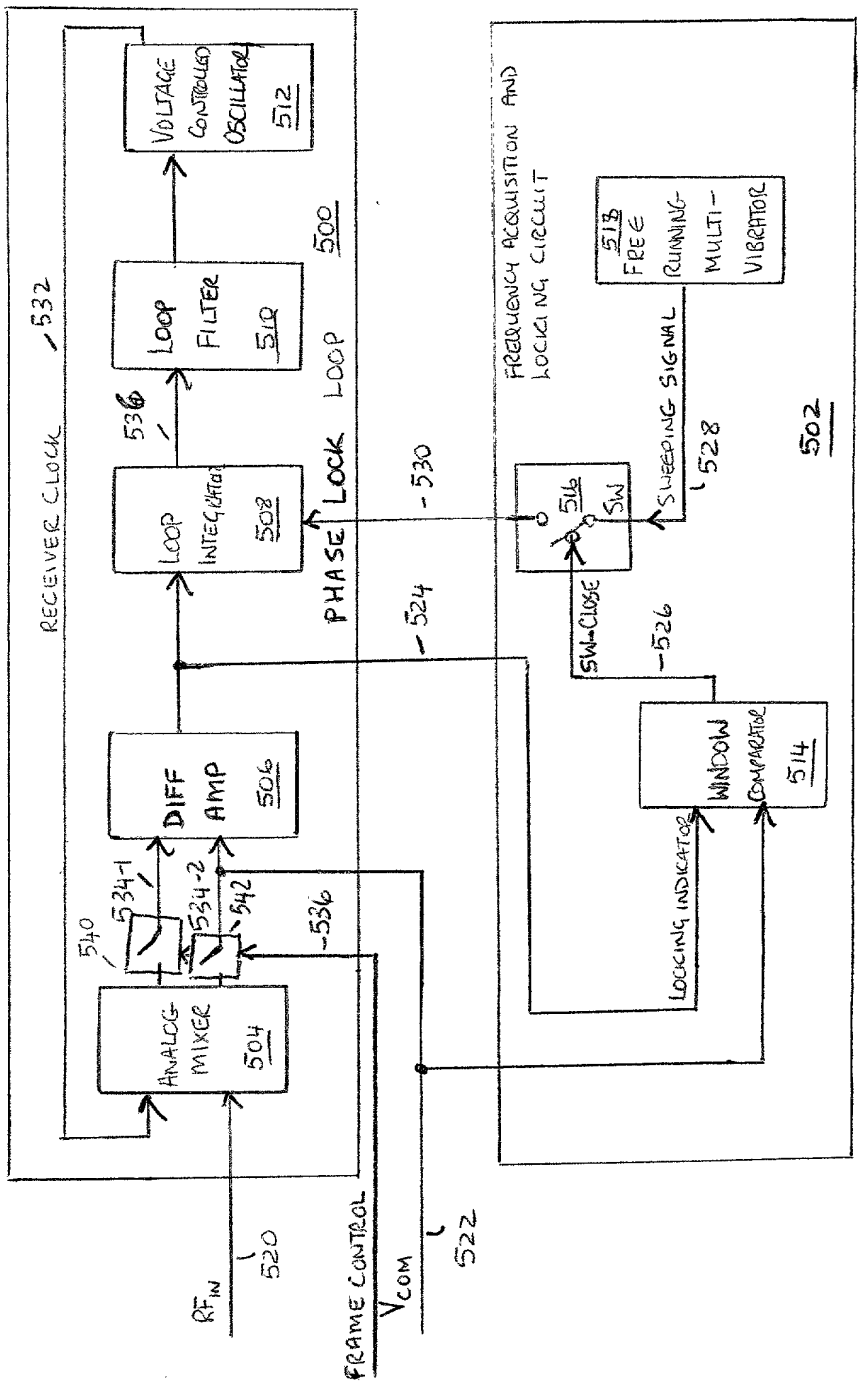
468
RECEIVER CLOCK
532
500
LOOP
PHASE LOCK LOOP
VOLTAGE CONTROLLED OSCILLATOR
512
LOOP FILTER
510
536
LOOP INTEGRATOR
508
DIFF AMP
506
534-1
534-2
542
540
536
ANALOG MIXER
504
RF IN
520
FRAME CONTROL
V COM
522
524
530
FREQUENCY ACQUISITION AND LOCKING CIRCUIT
502
516
SW
SW-CLOSE
526
SWEEPING SIGNAL
528
513
FREE RUNNING MULTI-VIBRATOR
LOCKING INDICATOR
WINDOW COMPARATOR
514

FIG.5

DRAFT - SUBJECT

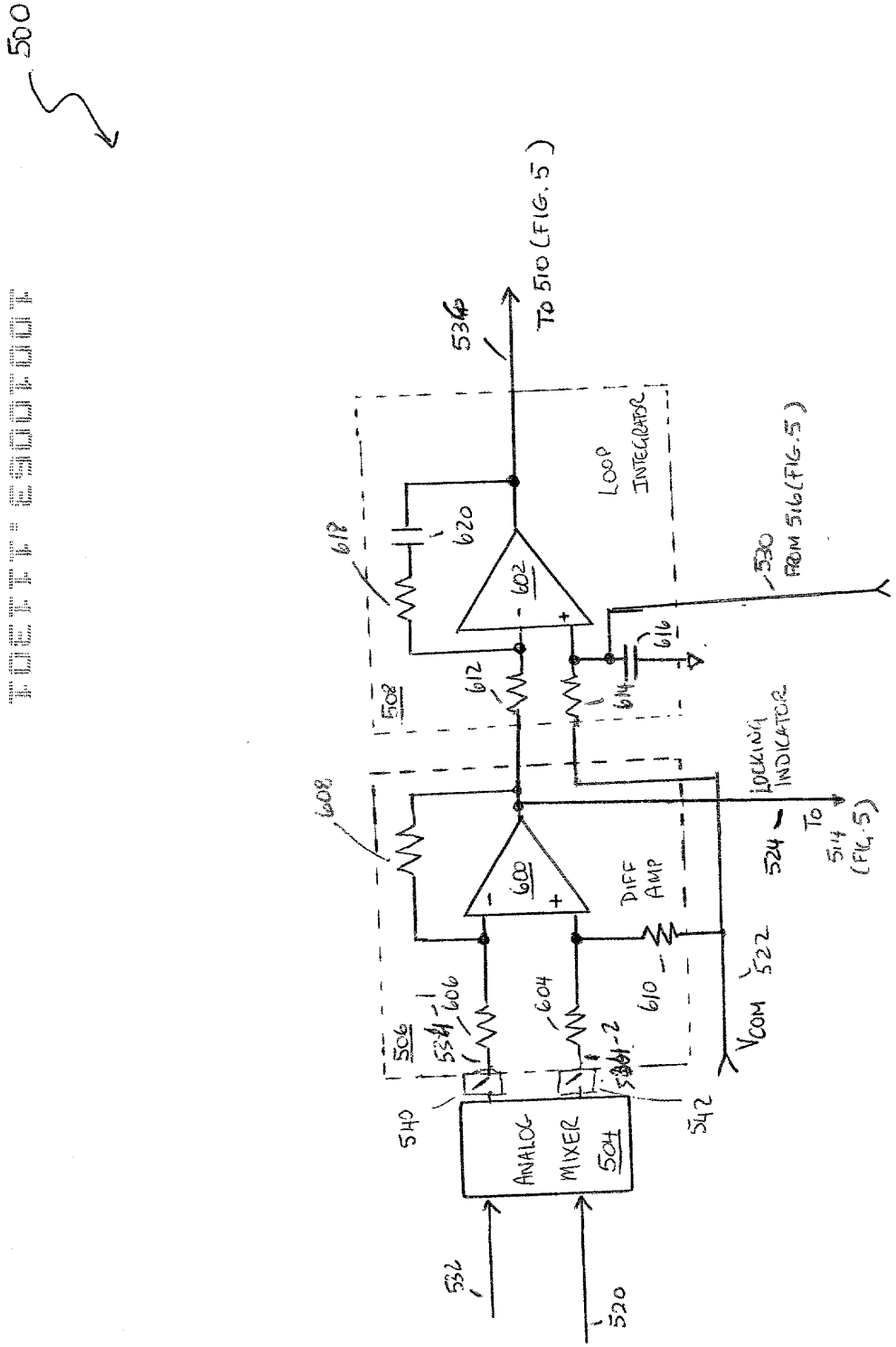

FIG. 6

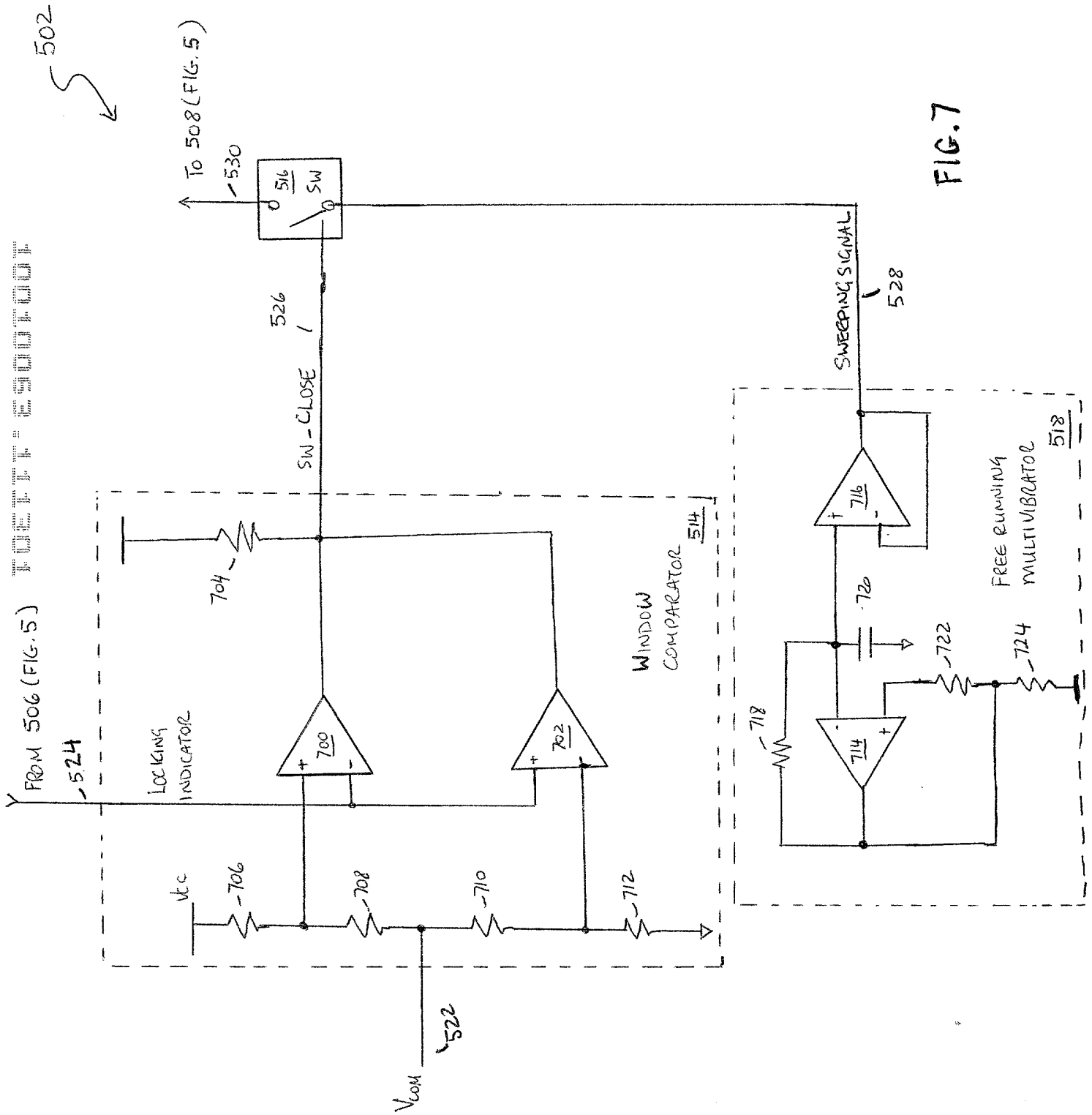
502
TO 508 (FIG. 5)
530
516
SW
526
SW_CLOSE
SWEEPING SIGNAL
528
FROM 506 (FIG. 5)
524
LOCKING INDICATOR
704
700
702
WINDOW COMPARATOR
514
716
720
722
724
FREE RUNNING MULTIVIBRATOR
518
718
714
706
708
710
712
Vcc
Vcom
522

FIG. 7

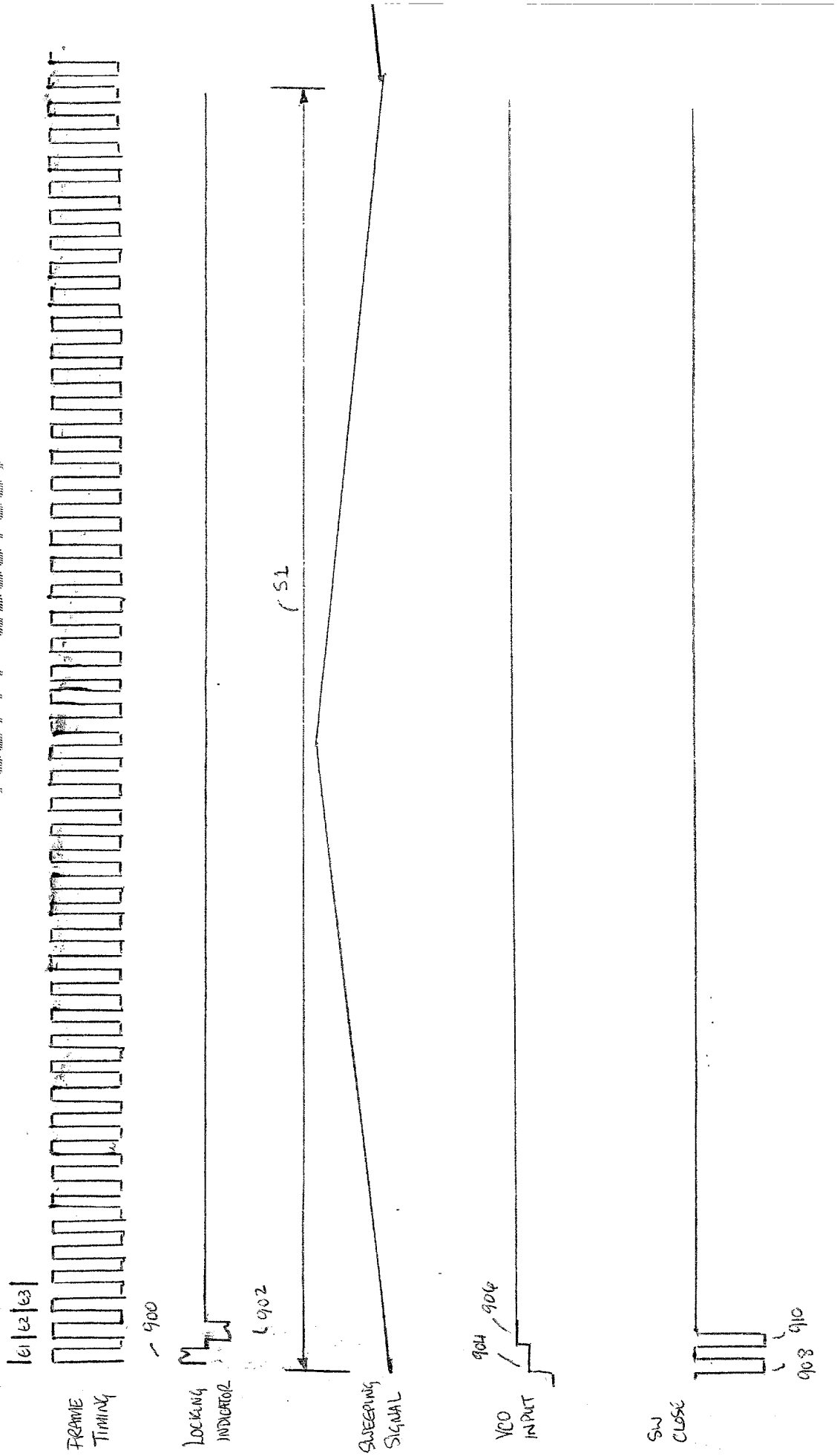
TO ETF END OF
|e1|e2|e3|
FRAME TIMING
900
LOCKING INDICATOR
902
S1
SWEEPING SIGNAL
904
906
VCO INPUT
SW CLOSE
908
910

FIG. 8A

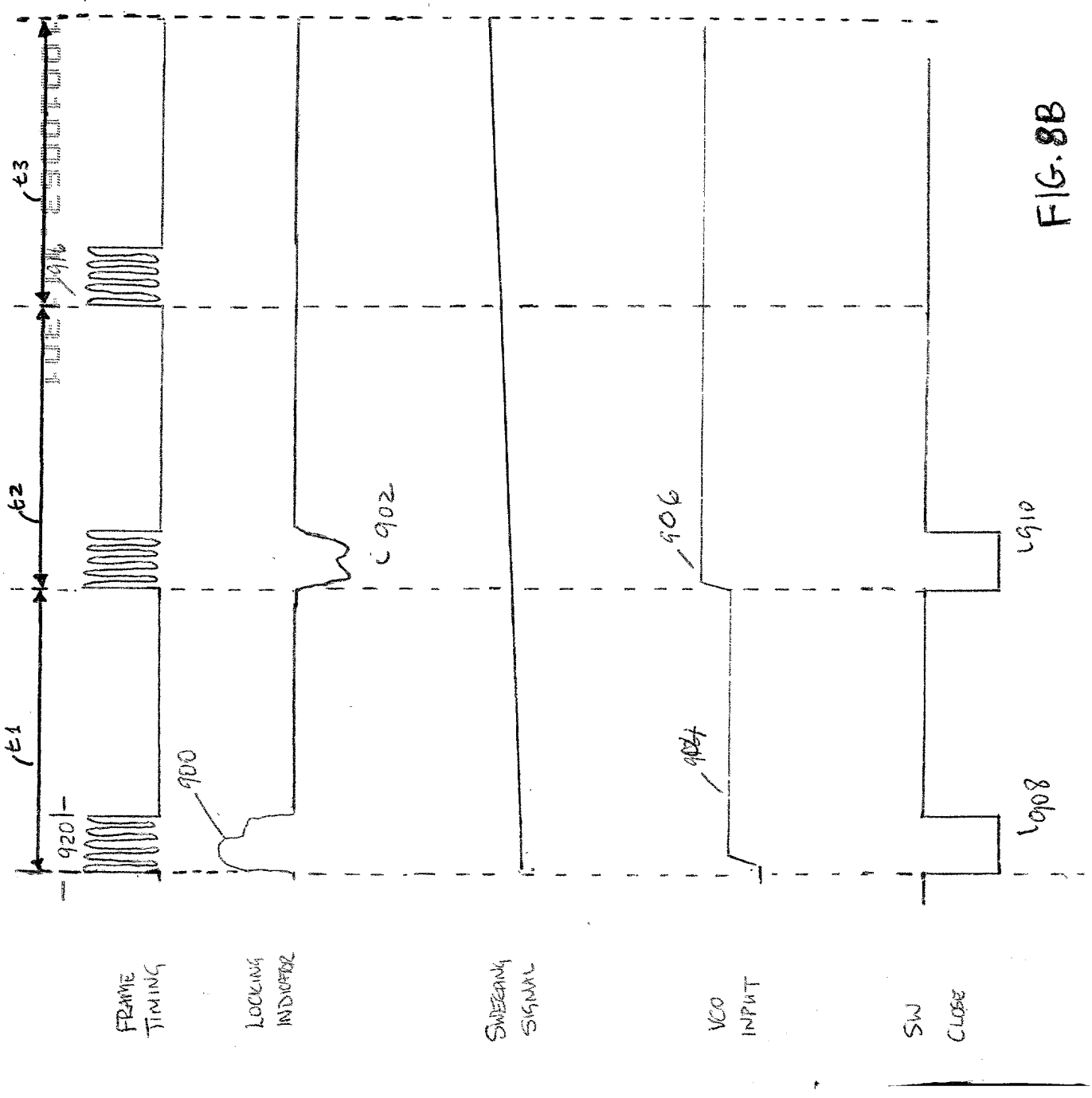
t1
t2
t3
920
900
902
904
906
908
910
FRAME TIMING
LOCKING INDICATOR
SWEEPING SIGNAL
VCO INPUT
SW CLOSE

FIG. 8B